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Profile

March 1978

What does the Navy "Patternmaker" do?

- Makes all types of wood, metal and plaster of paris patterns.
- Sketches and designs patterns.
- Works with appropriate hand and power-driven tools and instruments.
- Makes templates and jigs for use in pattern shops.
- Estimates time, material and costs for patternmaking and casting jobs.
- Maintains and repairs patternmakers' tools and equipment.

What qualifications must he have?

- High aptitude for mechanical work.
- Ability to do exacting, precise work.

Helpful but not essential:

- Courses in woodshop, foundry, mechanical drawing, shop and practical mathematics.
- Experience in carpentry or model assembly.

What does he learn in the Navy?

- How to select and work with various types of materials.
- How to use a wide variety of woodworking machines.
- Fundamentals of machine shop work.
- How to work with plaster of paris.
- Basic knowledge of metals.
- Techniques for effective patternmaking.
- Foundry practices and procedures.
- Principles of mathematics applicable to patternmaking.

NAVY SKILL

Patternmaker

The patternmaker is a key man in modern industry. He works from blueprints and sketches to build the master patterns used by molders in foundries.

There are many closely related civilian jobs, such as template maker, layout man, industrial arts instructor, form builder, metalworker, bench carpenter, loftsman and modelmaker.

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Profile

March 1978
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The purpose of this magazine is to inform young people and guidance personnel about benefits, opportunities, privileges and programs of military service.

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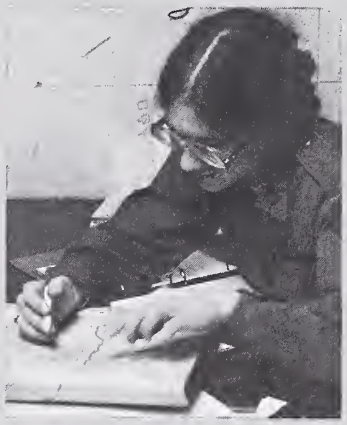

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Back cover: photo by SSgt Bobby Cuyler

On the cover

Ground surveillance radar crewmen set up and align radar dishes to collect electromagnetic intelligence. Their site is carefully selected to eavesdrop effectively on enemy transmissions.

Counselors' Corner: From the director

The staff and I certainly appreciate the favorable comments about PROFILE and especially the October issue. Feedback from you helps us judge the content and quality of the magazine. Anytime you have a beneficial suggestion about how to improve PROFILE or its content, drop us a postcard. Your ideas will be considered. If you know other educators who do not receive PROFILE, but would benefit from it, suggest that they write us directly. Please keep in mind that the magazine is not a recruiting publication; therefore the recruiter visiting your facility cannot provide you with copies.

The man behind the wheel

Story and photos by Ed Moreth

A Coast Guard coxswain carefully steers his 41-foot boat into the dock at Coast Guard Station, Little Creek, Va. During training, a coxswain undergoes five hours of docking with a qualified coxswain.

Piloted by coxswains, the Coast Guard's many patrol boats continually search the waters for boating hazards and enforce maritime laws.

Editor's Note: In areas near any large body of water, daily newspapers carry many stories of the Coast Guard going to the aid of troubled ships.

Behind these life-saving and often dramatic efforts are the dedicated men and women of the U. S. Coast Guard. To tell the story of one of the jobs these men and women do, Coast Guard Photojournalist Third Class Ed Moreth, while assigned to the Fleet Home Town News Center, Norfolk Naval Base, Va., visited Little Creek Va. station, to get first hand material for the following article about coxswains. PA3 Moreth is now assigned to the U. S. Coast Guard Public Affairs Office, Portsmouth, Va.

A man who seldom steers you wrong — that's the Coast Guard coxswain.

The coxswains, men and women, pilot the Coast Guard's small boats when assisting capsized sailboats, grounded vessels, downed aircraft, and other search and rescue (SAR) operations in all kinds of weather, 24-hours a day. In reality, the coxswain is in charge of boat and crew once underway. Lives of crew and passengers depend on his judgment and decisions.

Boatswain's Mate Third Class Mark D. Kolbert, a qualified coxswain, said "I like working with small boats, and I enjoy having the responsibilities when underway."

A Coast Guardsman from the station at Little Creek, Seaman Paul E. Hallman describes the coxswain. "He's the guy who gets you there and brings you back safely." SN Hallman continued, "I believe a coxswain has to have a good head on his shoulders and be able to cope with any situation, He's the kind of man who isn't afraid to go out in any kind of weather, day or night."

When a person assumes the responsibilities of a coxswain, he must be qualified. To qualify, he goes through a series of training procedures and tests.

Before a Coast Guardsman begins training for his coxswain badge, he must first become a qualified crewman, learning things such as the handling of lines, how to tie knots and hitches and knowing the use of each. He learns the boat's equipment, the duties of a lookout, first aid and fire fighting. Boat handling is also a part of a boat crewman's training: learning the steering commands, compass courses and boating safety.

After becoming a qualified crewman, he learns towing procedures of different types of vessels, such as sailboats, large fishing boats and pleasure boats.

Each qualified coxswain must become thoroughly familiar with his operational area, its charts, shorelines, beaches, currents and the water depth. This helps build confidence and enables him to make sound decisions.

He becomes familiar with basic piloting, identification of chart symbols, learns to read latitude and longitude and demonstrates his ability to pilot a safe course.

Coast Guard Machinist Mate Third Class William Smithers, who recently finished training for his coxswain badge, said, "It takes on the average about two months of on-the-job training to become qualified."

A coxswain must know many things such as: the characteristics of various Coast Guard boats, their cruising ranges (full speed and economical), sea capability of his station's boats, cargo placements, ice operation precautions, and the distance required to stop at various speeds. A coxswain must be able to dock a boat in any weather condition.

At the end of a coxswain's training period, he must have completed 40 hours underway with a qualified coxswain on board: 5 hours docking, 10 hours piloting exercises to and from different locations, 5 hours of night training, 5 hours of fog navigation and 15 hours of SAR operations including the handling and docking of disabled vessels in tow. He must know SAR procedures, search patterns and planning and the precautions for fire and spilled fuel.

Last year, Coast Guard Station Little Creek handled more than 670 cases, from drownings to pleasure craft out of gas. BM3 Kolbert, stationed there, said it gets very busy during the boating season each year, but slacks off towards the end of October.

Boatswain's Mate Second Class Steve M. Stevely from a Coast Guard station in Rochester, N. Y., said, "The coxswain is the man behind the rescue. His decisions save people in a capsized boat and his judgment brings a disabled vessel back into port." BM3 Stevely

Seaman Apprentice Leslie Hall of Coast Guard Station Little Creek, Va., helps dock a patrol boat by mooring the lines. Before becoming a coxswain all trainees must first become skilled crewmen.

explained that each time a coxswain arrives at a new station, he has to become familiar with the area, it's charts, currents, shorelines, and how the station's boats handle.

Recently the Little Creek station got a call shortly after midnight to assist a grounded 35-foot pleasure boat, the Eagle Spirit, about five miles due north of the station. The coxswain radioed instructions to the captain to use a spotlight to show his position. After finding the Eagle Spirit, the coxswain tried to maneuver his boat to the grounded vessel's side, but the water was too shallow.

Several attempts were made to cast a line to the vessel, then the coxswain called a local fire department for an amphibious vehicle to help. The amphibious vehicle arrived and carried the tow line to the Eagle Spirit, allowing the Coast Guard to tow the boat to safety. By the time the coxswain and his crew returned to the station, the sun was rising.

BM3 Kolbert said many times he has been out all night on a case and then has had to get underway in the morning. But he added, ''I wouldn't change for any other job.'' To Kolbert and his crew it's all part of the routine.

''I've never seen two coxswains alike,'' said BM2 Don G. Tillman, who has been on more than 300 missions. He added, ''Each coxswain has his own way of running his boat and crew. Each has his own routine, how he wants the boat docked, towing methods, and mooring lines.''

But a coxswain's work is not always at sea. Sometimes he aids other coxswains through radio communication from the station. Each day, he completely checks his boats, making sure equipment is in top condition and ready to get underway when the call comes.

If there is any slack time, the coxswains pass the time playing cribbage, and waiting, just waiting, waiting...

Learning the ropes, running a boat and saving lives. A job calling for a ''good head'', quick decisions and dependable judgment — a Coast Guard coxswain.

TRAINING DEVICE TECHNICIAN

In the air – on the ground

This article was adapted by JO2 Dave Crowe from material furnished by JO2 Glenna Houston, Navy Public Affairs Center, Norfolk, Va.

''I have always been fascinated with flight and how airplanes are put together,'' remarked Navywoman Janet J. Beyers. Now TD3 (Training Device Technician Third Class) Beyers, South Billings, Mont., helps pilots develop their flying skills and saves energy and money to boot.

The 1974 graduate of Laurel (Mont.) Senior High School works on the mechanical, hydraulic, electrical and electronic systems of a LAMPS (Light Airborne Multi-Purpose System) helicopter simulator at Fleet Aviation Specialized Operation Training Group Atlantic in Norfolk, Va.

A flight simulator saves energy because a student pilot can gain experience without actually burning fuel in a plane.

''Learning to fly can be a dangerous business,'' she said. ''I've seen some beginner pilots make some mistakes that would have killed them if they had been in a real plane.

''I have wanted to join the Navy since I was six,'' she said with a smile. Her father served in the Navy; a brother is a sailor in Taiwan. She became part of the Navy family in April, 1975.

Helping pilots learn about procedures in using a flight trainer is another aspect of a tradevman's duties. By "flying" a trainer, a student pilot gets practice under safe conditions.

Following recruit training in Orlando, Fla., she went to the Naval Air Technical Training Center in Memphis, Tenn.

Janet attended several schools in Memphis including one for avionics fundamentals and another where she learned basic electricity and electronics by studying transmitters, receivers, transistors and tube theory. Not everyone can qualify to attend. Other possible avenues of instruction include on-the-job training and self-study.

Only after successfully completing those schools, could she attend tradevman (training devices technician) school. There she learned principles of instruction, principles and application of basic physics, basics of computers, flight theory and performance, navigation, and flight simulator operations and maintenance.

Tradevmen teach future pilots by using training equipment. Training device technicians (TDs) must know basic physics, electricity and electronics. It is very helpful for a prospective TD to take courses in physics, electronics, shop work and mathematics. One must be able to solve practical problems using numbers, common sense and theory.

"Having chemistry and physical science in high school made the Navy schools easier," she remarked. "But, if you work hard, I think you can get all the background you need from the Navy schools."

Tradevman Beyers says it takes patience and an open mind to teach someone to fly. The occupation also requires personal initiative and a clear speaking voice. "There is a tremendous amount of information you have to learn to do this job. There are systems within systems in the trainer and you have to learn to maintain each of them," she explained. All tradevmen are expected to know the mechanical components and maintenance requirements for training equipment.

Janet Beyers is presently attending Tidewater Community College, Norfolk, Va., majoring in electrical engineering for an associate of arts degree. As soon as she meets the qualifications, the Navywoman plans to apply for the Reserve Officers Training Corps program; get a college degree and a Navy commission.

It takes knowledge of electrical, mechanical, hydraulic and electronic systems for Navywoman Janet Byers to do her job. (Since this picture was taken, Byers has been promoted to third class.)

Using eye contact and persistence, an interrogator questions a "prisoner of war" during a field practice session on interrogation techniques. Since prisoners, when handled properly, can be valuable sources of information, students are given a variety of opportunities to perfect their skills.

Piece by piece, like the straws that eventually overload the proverbial camel, an accumulation of bits of military intelligence can decide a single battle or an entire war.

Intelligence — it can be practically any scrap of information, from the most unlikely facts about individuals to the size and range of weapons or guesses at the direction from which an enemy will come.

Each bit may seem unimportant by itself, but when it's added to the growing pile, it can help clear the "fog of battle" and form the basis for tactical strategies and decisions.

The Army needs lots of people to look for, record, interpret and pass on pieces of intelligence. The Intelligence Center and School at Ft. Huachuca, Ariz., draws together the facilities to back up Army intelligence operations. Dotted across this historic southwestern post are a wide assortment of programs and departments.

Working in the occupational specialties produced by these courses can be by turns exciting and routine, challenging and commonplace. It is always a vital contribution to the Army, during times of conflict or peace.

A few requirements apply to all enlisted programs. In general, a background in math or electronics is a good idea. For some specialties, typing is useful; for others, skills in photography or languages or physical prerequisites such as good eyesight and color perception are necessary.

One of the school's most interesting and demanding courses is interrogation. Normally practiced during wartime to obtain information from prisoners of war, interrogation is taught by a succession of "real world" scenarios.

Just the facts, sir

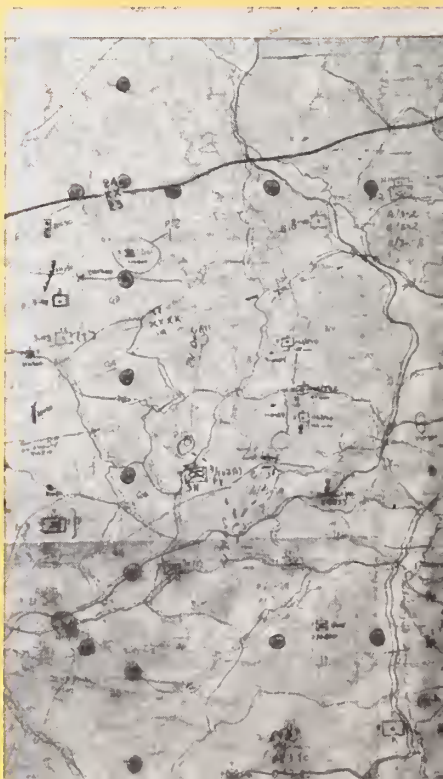
By Carol Nelson

Hovering in an Army UH-1 "Huey" helicopter, ground sensor intelligence specialists prepare to drop a missile-like remote sensing device. The bombardier will release the device as soon as the spotter (right) finds a pre-determined drop location, which will then be noted by the recorder (left). A series of remote devices is usually dropped along roads close to enemy lines.

School faculty play roles of foreign prisoners very convincingly. They may, for example, wear the rank of Soviet officers and must be approached with the same official courtesy demanded by the rank.

Students and "prisoners" face each other across small, map-strewn tables in enclosed booths. Questions are asked, always in line with acceptable interrogation methods. Students learn to probe and detect each prisoner's state of mind and how to phrase questions to gain the most response and factual information from the background stories that faculty members use.

A tactical interrogation report is then prepared, detailing everything revealed by the prisoner, especially map information. Often an assistant instructor will sit in on the session to prompt the interrogator or help him



follow up on leads. Closed circuit television monitors each session so students can see themselves in action.

Toward the end of this seven-week course, a field exercise introduces interrogation under simulated battlefield conditions. Outdoors, the sessions may stretch from the hour and a half of the practice face-offs up to four hours of non-stop questioning.

Once students have finished the academic and practical elements of this course, they move on to the Defense Language Institute in Monterey, Calif., to learn a specific language in order to be able to conduct interrogation in prisoners' native tongues.

Many interrogators become special agents and return to Ft. Huachuca for additional training in counter-intelligence. At least two years of military service (not necessarily in the Army) is required for this field and some college experience is preferable. The Army's special agents are as close as any job can come to the "James Bond" image of intelligence workers. For those who can handle the responsibility, a special agent position offers a chance for fairly independent, critical work in a variety of overseas stations.

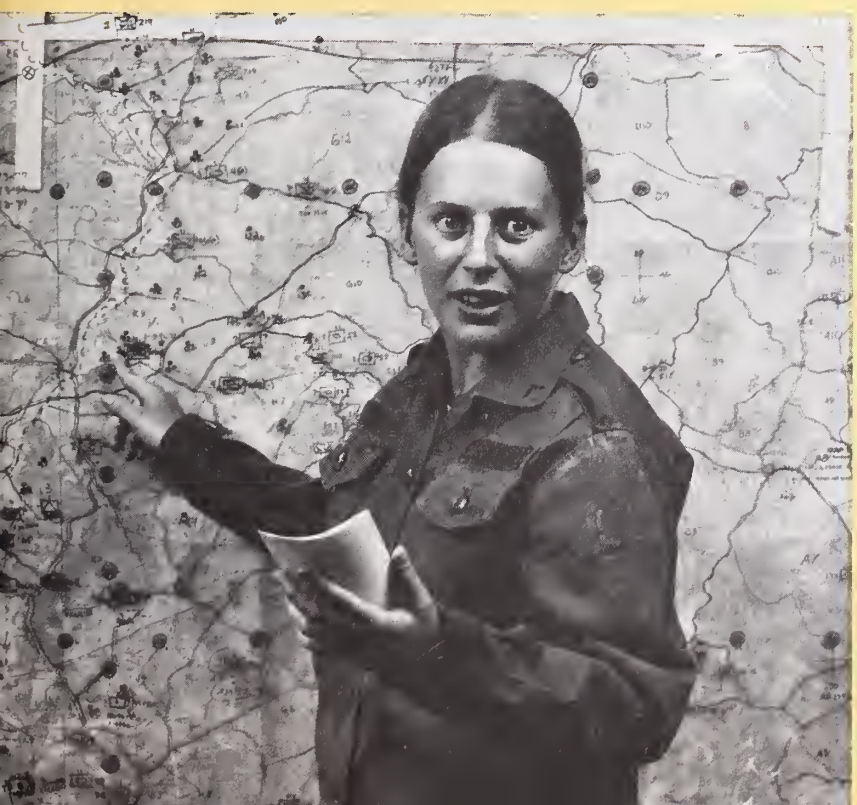
Intelligence takes to the air in the Army Mohawk, a two-place turboprop plane packed with photographic and electronic sensor equipment. A sturdy little aircraft, it carries a pilot and an enlisted observer who loads and operates cameras and radar that can pick up images in daylight, darkness and even stormy weather.

The sensor operator learns to plan a mission and to ensure that all equipment is recording properly. Very select classes of two or three people allow instructors and students to work closely during the eight weeks of training.

Prior to acceptance, students must pass flight physicals and ejection seat procedures to qualify them for air surveillance duty. Stateside assignments as sensor operators can take them only to Ft. Huachuca or Ft. Hood, Tex., but they may also draw overseas positions in units in Alaska, Korea or Germany.

When Mohawks land and unload their equipment, the image interpreters take over. Ft. Huachuca has a 14-week course to graduate apprentices in this skill. They pore over negative and positive images on film, looking for enemy equipment and structures. Stereoscopic vision (the ability to perceive depth from the combined images from both eyes) is a strict requirement for this field.

On a self-paced schedule, students



An area map is a key item in an intelligence analyst's job. A student analyst at Ft. Huachuca's Intelligence School demonstrates plotting and interpretation methods to organize facts reported by intelligence sources.

Sensor operator, Specialist 4 Cathy Chandler, checks for proper placement of her equipment before taking off in a Mohawk to record more intelligence data. Cathy is a veteran of many Mohawk missions and currently teaches her specialty to students in intelligence training at Ft. Huachuca.

The nose of the Army's surveillance plane, the Mohawk, tilts up to allow for placing of forward-looking cameras. Several other sensor systems are also loaded into Mohawks to enable them to gather photographic and radar images for intelligence use.

An image interpreter scans a large roll of film produced by aerial cameras carried by Mohawk aircraft. She looks for structures or equipment to help in putting together maps and charts and in planning intelligence missions.

proceed through training modules at individual rates and may finish ahead of the 14-week deadline. They spend classroom hours with maps and drafting apparatus to convert film images into usable tactical intelligence.

Then there are repair specialists for the aerial surveillance hardware. For 43 weeks they work on the portable automatic darkrooms, infra-red devices, side-looking airborne radar and cameras packed into Mohawks. Classes are small and personalized, usually only about six students.

Intelligence analysis is a melting pot for many job skills. Analysts learn a little from all fields and quite a bit about the organization of the United States' and foreign military operations.

Their eight weeks of training prepares them to put together intelligence reports. By sifting through the information submitted from all sources, they pick out the important facts for presentation to commanders. Analysts go everywhere, under all conditions, wherever there is a need for their special help.

Still other job specialties beckon in the diverse intelligence arena. Morse intercept operators are needed to listen to the international pattern of "dits and dahs," as well as ground surveillance radar and signal security teams to set up field stations to pick up enemy transmissions. For every talent and ability, intelligence has a job.

Part detectives and part technicians, people in intelligence work to keep the Army informed and prepared against every threat.

Legally speaking . . .

Story and photos by Tony Delgado

The atmosphere in the room was tense, everyone was silent. As the judge entered the courtroom the bailiff called for everyone to rise. Everyone stood except the court reporter.

From his bench above the courtroom floor, the judge called the court to order. The trial had begun.

For the Marine court reporter these words signaled the start of a very demanding job. With eyes and ears keenly attuned, recording equipment in motion, and pad and pencil at hand, the reporter began recording another court-martial. Keeping an accurate and detailed record of the entire trial is very important.

The court reporter's job is only one of a variety of jobs available in the legal service field. Marines may become involved in not only court reporting but also in case preparations or even routine legal problems of fellow Marines.

While in the Corps, Marines may take advantage of free legal assistance. In addition, legal and financial counseling are available to cover such areas as interest rates, housing, preparation of wills and credit.

Formal training in the legal service field begins at the nine-week Legal Service School, Camp Pendleton, Calif.

The Legal Service Man/Reporter Course provides intensive instruction in the basic skills needed for these duties. This means being able to maintain a high standard of performance and reduce errors attributed to clerical and reporting functions in legal proceedings.

After reporting to the school, Marines begin training with basic legal administration. This includes lectures, practical application and workshops about all administrative duties of a legal service man. These classes sharpen knowledge in legal correspondence, utilization of reference material, use and maintenance of files and directives. English grammar, spelling, punctuation, vocabulary, sentence structure and typing at least 25 words per minute are emphasized.

Lance Corporal Ann Leach, 20, of Vienna, W. Va., as a court reporter at Camp Lejeune, N. C., spends a lot of time behind her stenomask recording courts-martial. When using the stenomask reporters must repeat every word said and identify who is speaking for making accurate transcripts later. (Photo by Sergeant John Prosser)

Mrs. Ruth Dunlap, a long-time instructor at the school, points out that many students, regardless of educational background, need additional instruction in grammar and spelling to handle complex legal material.

After three weeks of administrative training, Marines at Pendleton start the second phase. Training centers around all duties and tasks of a legal service man. Some of which include appeals from nonjudicial punishment, preparation of charges and specifications, charge sheets, convening courts and supervising court decisions, vacations of suspensions, court-martial orders, investigations, courts of inquiry, administrative discharges, legal assistance, civil processes, punishment and preparing and using forms.

From here Marines have two roads to follow. They can become legal clerks at the many different commands throughout the Marine Corps or continue at the school in the Legal Service Reporters Course.

Students selected from the second phase or those assigned from the field with other occupational specialties, will find the next three weeks of training very demanding.

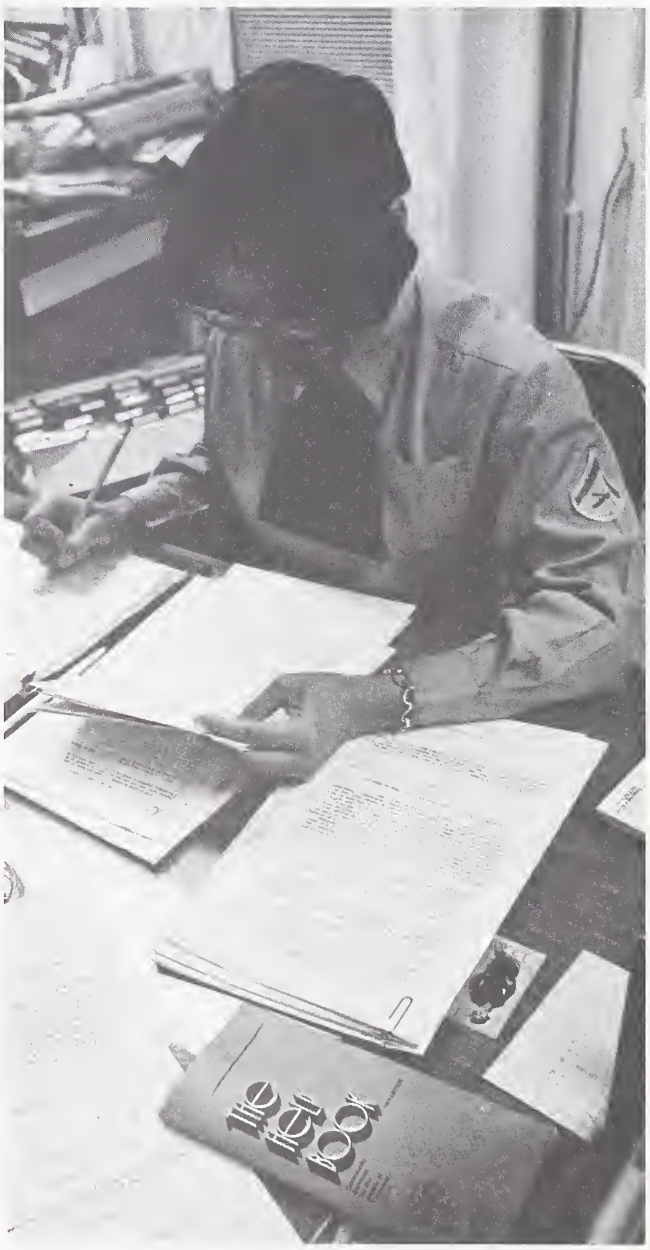
Learning the duties of a legal service reporter will cover use of recording and transcribing equipment, use of closed microphone in conjunction with the recording machine and proper methods of recording and transcribing formal pretrial investigations, hearings, and verbatim and summarized records of trial by special courts-martial.

Marines in this course seem to show the greatest anticipation for the excitement of working in legal services. From here they could go to a major command and be involved in the day-to-day business of handling the recording of actual military trials, always conscious of their responsibility to maintain an accurate record of everything that takes place in the courtroom.

They must identify who's speaking, repeat everything said, describe any pertinent gestures or movements that occur, keep a log of all times the court is called into session, recessed or adjourned. The court reporter also keeps records pertaining to all exhibits, witnesses, procedures of examination and the types of witnesses.

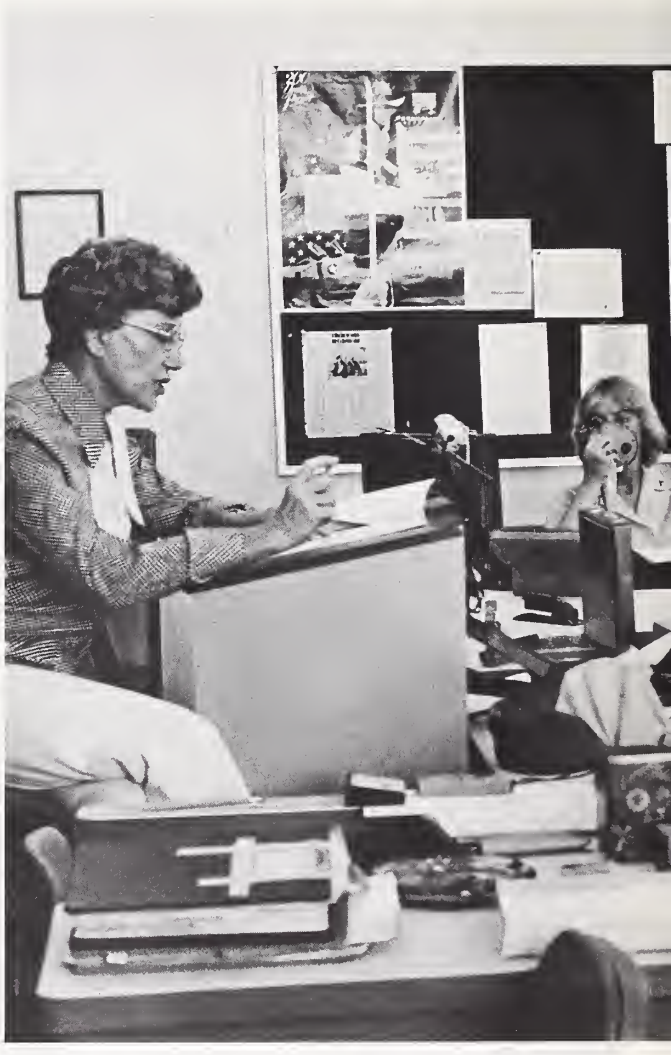
Lance Corporal Katherine A. Koslick, a legal clerk with the Fleet Marine Force Atlantic's headquarters in Norfolk, Va., notes, "We handle a lot of wills and routine legal questions for Marines in the Norfolk area."

"But we do have our hands full when the office gets involved with the legal matters of the various East coast commands that fall within our jurisdiction. We can become



Lance Corporal Francine L. Kelly, 21, of Omaha, Neb., records and files wills as part of her duties with Naval Legal Service Assistance Office at Fifth Naval District headquarters, Norfolk, Va.

Private First Class Hilliard G. Washington, 20, of Gary, Ind., practices dictation by recording court transcripts used at the Marine Corps' Legal Service School, Camp Pendleton, Calif. Washington wears corporal chevrons to denote his position as a class leader at the school.



Mrs. Ruth Dunlap, an instructor at the Marine Corps' Legal Service School, Camp Pendleton, Calif., reads the transcript of a court-martial to students in the Court Reporter Course.

Lance Corporal Katherine A. Koslick, a legal clerk at Fleet Marine Force Atlantic headquarters, Norfolk, Va., checks reference material before finishing work on a will. Wills and other routine legal problems make up the bulk of work done by many legal clerks in the Marine Corps.

involved in the review process for cases from bases in North Carolina, units assigned to duty in the Mediterranean Sea or the command at Camp Garcia, Puerto Rico.''

The 28-year-old Glassboro, N.J. native summed up her feelings for the job simply, ''I like it!''

For Kathy and the others in her field, the future holds many rewards, excellent promotional opportunities, more training in the Advanced Legal Service Courses or selection for either Stenotype or Notereader/Transcriber Programs.

Hours of practice with dictaphones will give these students the confidence to handle many types of court proceedings.

Mrs. Dunlap points out that several former legal service people have left the service, continued their education and become legal secretaries or court reporters; some have become lawyers.

Of the many benefits that are a part of military life, legal service stands as one that can play a significant part in everyone's life. Along with an increased use of legal services comes an equally greater need for men and women to enter the legal field.

Corporal Luette K. Stevens, 25-year-old native of Suffolk, Va., sits at her typewriter ready to begin transcribing her own dictation. Corporal Stevens, formerly assigned to a subsistence supply unit, describes the school as the "very best."

Staff Sergeant James W. Ross Jr., a native of Orlando, Fla., monitors recording equipment as his typewriter automatically types out the transcription of a court-martial. Ross is one of three Marines who are assigned to duty with the Transcription Section of military justice at the Naval Legal Service Office, Norfolk, Va.

Fiery finals

Editor's note: PROFILE is indebted to MSgt Dave Sheeder, Information Office, Chanute Technical Training Center, Chanute AFB, Ill., who did the research and furnished a majority of the material used in the following article.

Final exams!

Just those two words can conjure up different situations to most students. For many, the image is a classroom in fairly comfortable surroundings, especially when they feel prepared for the exam.

Not so at the Air Force's Fire Protection Training Branch at Chanute Air Force Base, Ill. The scene here is a "blazing classroom" where figures armored in silver suits walk toward a raging inferno. The outdoor temperature is around 20 degrees; a 15 mile per hour wind creates a wind-chill factor of -6 degrees.

Moving hesitantly at first, then with more confidence, in teams of two, triggering streams of thick, white foam from large gun-like nozzles held tightly in their hands, the students move into the flames. The foam agent blankets the fire, smothering the 2,000-degree flames while the novice firemen rescue "dummy" aircraft crew members.

Chanute annually trains more than 4,500 Department of Defense (DOD) students at its Technical Training Center's fire protection training branch — largest such school in the world and a pacesetter in modern fire protection technology.

Firefighters are no longer just mobile fire extinguishers. Today, they must be rescuers, engineers, public relations experts and last, but not least, physically and mentally capable of attacking a major fire, entering an extremely hazardous environment, locating and removing victims.

This unique school offers 15 separate courses: a nine-week basic fire protection specialist course, six supplemental courses, seven special technical training courses and one advanced course for fire protection supervisors. Together, they are nearly equivalent to a college degree in fire protection technology.

Of the more than 4,500 firefighters trained by 127 instructors at Chanute each year, about 700 come from Army, Navy, Marine Corps, Coast Guard and Guard and Reserve units. One-third of the total number of students trained are civilian firefighters employed at military installations.

Divided into three-week sessions, the basic course teaches fundamentals an airman needs to reach the apprentice level in firefighting and fire protection.

During the first three weeks, classroom academics concentrate on the theory and combustion of fires, the transmission of heat and the fundamentals of pyrotechnics and explosives.

The second three weeks of training provides "hands-on" instruction and simulated training with structural firefighting equipment, techniques and tactics. For example, training with self-contained breathing apparatus begins in the tunnel — a maze which students must pass to reach their objective.

To simulate smoke, which would prevent students from being able to see their way through the tunnel, a mask is fitted over the faceplate of their breathing apparatus. When asked his reaction to this training, one student said, "You get mighty damn tired of bumping your head against walls." Later, in the smoke tower, the same exercise is conducted in a realistic environment. The final portion of the basic course focuses on aircraft fire suppression and rescue.

"When the students are ready to go on their first live-fire training operation, some are still a little apprehensive that their equipment and protective clothing won't protect them," said Master Sergeant Robert Vires, instructor for this training phase.

To build their confidence, an instructor accompanies students the first day. Then, the firefighters work their way from small to medium and finally to large aircraft fires.

"At first, the aircraft fires are hot, but once you get into them you forget about the heat," said Airman Basic Lionel McPeters, an 18-year-old student from Daly City, Calif. "I volunteered for firefighting duty because I like the adventure."

Army Private John A. Morgan, 18, of Victor, Ind., said he likes the challenge the "fire school" offers. "It's a good school — they say the best in the world. I think so, too, because I've learned a lot in a relatively short time."

That statement also sums up how Carol Depperman, a 42-year-old grandmother from Clovis, N.M., feels about the fire school. She recently attended a three-week firefighting and rescue course designed primarily for USAF civilian firefighters.

"I've been working in the base fire department at Cannon (Air Force Base, N.M.) for more than two years, but only the past 14 months as a firefighter...before that, I was secretary," she says.

"At Chanute, they take the time to correct your mistakes during exercises, which is excellent because when the real thing comes along you don't have time to think about whether it's right or wrong — you just react automatically," added Carol.

Uplifting the image of firefighters and developing new concepts and tactics for successful aircraft crash firefighting, among other things, were largely accomplished from 1965 to 1976 under the leadership of Chief Warrant Officer Louis F. Garland. Now retired from a 33-year Air Force career, he lives in North Fork, Calif., and teaches fire science technology at Fresno City College.

Fighting live simulated structure fires in a controlled environment helps students build confidence in themselves and their protective equipment.

A P-2 crash vehicle operator provides coverage for firefighters as they go through training at Chanute's burn pit.

Sergeant Donald G. Smith (right) instructs Army Private John A. Morgan how to open the nozzle slowly during a practice session to teach "cross-hose," high-pressure, solid- stream delivery technique.

Students move in to fight a fire on a large-frame aircraft mock-up.

"One of the most critical problems facing the career field at that time was the morale of firefighters," Garland related. Their image was little more than tobacco-chewing, checker-playing, coffee-drinking, red-suspender-wearing firemen, who had few brains and considerable brawn.

"Also, firefighting trainees at Chanute were often rejected by other students because they smelled of fish. The protein foam used to suppress fuel fires at that time was made from fish scales, among other things, and produced a strong and unpleasant odor."

That problem no longer exists because the Air Force uses a film-foaming agent for petroleum fires, which blankets the burning surface and prevents the fuel from vaporizing and mixing with the air. It's about 300 per cent more effective than protein foam in suppressing fuel fires.

While progress is being made within Chanute's fire protection training branch, the school also has made an impact on state and national fire protection programs.

In October 1975, Major Robert L. Gott, branch chief, accepted a position as co-chairman of the Illinois Fire Protection Personnel Standards and Education Commission's ad hoc committee on airport fire protection.

Gott pointed out that the branch's involvement with Illinois fire protection agencies has not only been as an adviser or provider of information. On several occasions, school instructors and equipment, at the request of the base fire department, have responded to fight real fires. The base fire department has a mutual aid pact with local off-base communities.

"The most recent example was perhaps the largest fire in the history of Rantoul, the city adjacent to the base," the major said. "A plant that manufactures plastic motorcycle fairings caught fire in January 1977. More than 50 firefighters and six vehicles from the base responded to battle the blaze, along with more than 100 firefighters and equipment from eight local communities."

Subfreezing temperatures, arctic winds gusting to 40 miles per hour and deadly hydrogen cyanide gas, produced by the burning plastic, hampered the firefighters' efforts. Airman First Class William Owen, 23, of Sauk Village, Ill., and a graduate of Chanute's fire school now assigned to the base fire department, remembers the day well:

"It was cold out there all right, but the things I remember most were the dense smoke and shortage of water. They had to keep bringing pumpers in full of water because there weren't any hydrants out there.

"I spent five hours manning a hand line outside and inside the factory. The training I got from the fire school here really paid off — it gave me a lot of know how and confidence to help fight a fire that large.

"But, you know, even though I was very glad to get out of all that smoke, freezing wind and poisonous gas, I can't think of anything else I'd rather be than an Air Force firefighter."

He passed his final exam.

Firefighter trainees remove a make believe crew member (a lead form) from an aircraft mock-up. In aircraft fires, the first priority is getting the crew members out.

A student uses an ax to ventilate a roof used for structural firefighting training.

By Aaron Williams

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